

CLAIMS

1 1. A method of effectuating a neural-function of a patient associated
2 with a first location of the brain of the patient, comprising:
3 identifying a stimulation site by generating remotely from the first
4 location an intended neural activity and determining a region of the brain where the
5 generated neural activity is present;
6 positioning at least a first electrode at the stimulation site; and
7 applying an electrical potential to pass a current through the first
8 electrode.

1 2. The method of claim 1 wherein the neural-function has been
2 affected by brain damage to the first region of the brain, and wherein:
3 generating the intended neural activity comprises applying an input for
4 the neural function that causes a signal to be sent to the brain; and
5 determining a region of the brain wherein the generated neural activity is
6 present comprises detecting the neural activity that occurs in response to the signal
7 sent to the brain.

1 3. The method of claim 2 wherein the neural function controls use of
2 a body part, and applying an input for the neural function comprises moving the body
3 part.

1 4. The method of claim 2 wherein the neural function controls use of
2 a body part, and applying an input for the neural function comprises applying a
3 peripheral electrical stimulation to the body part.

11. The method of claim 1 wherein the neural-function has been affected by damage, disease and/or a disorder at the first region of the brain, and wherein:

generating the intended neural activity comprises applying a peripheral input to the patient for effectuating the neural function that causes a signal to be sent to the brain; and

determining a region of the brain wherein the generated neural activity is present comprises detecting a change in neural activity in response to the signal sent to the brain.

12. The method of claim 11 wherein determining a region of the brain where the generated neural activity is present comprises determining a location in the brain different than the first location at which the generated neural activity occurs.

13. The method of claim 11 wherein determining a region of the brain where the generated neural activity is present comprises determining a location at which a change in neural activity occurs in correspondence to a change in the neural-function.

14. The method of claim 1 wherein positioning at least a first electrode at the stimulation site comprises positioning first and second electrodes at the stimulation site and resiliently biasing at least one of the first and second electrodes against a surface of the brain.

15. The method of claim 1 wherein positioning at least a first electrode at the stimulation site comprises positioning first and second electrodes at the stimulation site and resiliently biasing at least one of the first and second electrodes against the pia mater.